FIA Survey of Exchange-Provided Electronic Trading Risk Mitigation Controls

FIA has committed to building a central repository of exchange-provided controls and practices. To do so, this survey has been developed in consultation with FIA members. The survey has been sent to 70+ exchanges globally and the central repository will present, in an exchange-by-exchange format, a view of the answers provided. We believe that the repository will provide a convenient, central source of exchange-provided controls and practices for global brokers, clearing firms and traders, as well as
facilitating risk control benchmarking for exchanges.

The survey is in an editable excel format which will allow you to enter and save your responses and when complete to return to us at ExchangeRiskControlsSurvey@fia.org.

As you are completing the survey, should you have any questions or concerns, please contact us at ExchangeRiskControlsSurvey@fia.org.

FIA Privacy Statement https://www.fia.org/fia-and-ifm-privacy-statement

	Contact Information	
1	Exchange Name *As you would like it to appear on the FIA website*	**CME Group**
2	Name of person completing the survey *First name Last name (i.e John Smith)* *For FIA internal use only*	
3	Email of person completing the survey *For FIA internal use only*	
4	Name/Department for FIA members to find additional information *For FIA internal use only*	
5	Email for FIA members to find additional information *This will be published on the FIA website*	globalaccountmanagement@cmegroup.com
6	Website URL for FIA members to find additional information *This will be published on the FIA website*	www.cmegroup.com/globex

	Introductory Question	
7	Does the Exchange allow direct market access? *Check all that apply*	
7.a	Direct access for Clearing Members	☑
7.b	Direct access for Traders sponsored by Clearing Members/Sponsoring Firms	☑
7.c	Direct access for any Trader who wants it	☐
7.d	Direct access via a Clearing Member's/Sponsoring Firms infrastructure	☑

Exchange-Provided Risk Management Tools

The following questions pertain to Exchange-Provided Risk Management Tools Configurable by Clearing Members/Sponsoring Firms and Traders

8	Does the Exchange make **maximum order size limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? *Check all that apply*	
8.a	Not Applicable	☐
8.b	Available to set manually	☑
8.c	Available to set via API	☐
8.d	Is this a mandatory control	☐
9	If mandatory, provide rule citation	
10	Does the Exchange make **maximum intraday net position limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? *Check all that apply*	
10.a	Not applicable	☐
10.b	Available to set manually	☑
10.c	Available to set via API	☑
10.d	Is this a mandatory control?	☐
11	If mandatory provide rule citation	
12	Does the Exchange make **maximum intraday gross position limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? *Check all that apply*	
12.a	Not applicable	☑
12.b	Available to set manually	☐
12.c	Available to set via API	☐
12.d	Is this a mandatory control	☐
13	If mandatory provide rule citation	
14	Does the Exchange make **maximum intraday notional value limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? *Check all that apply*	
14.a	Not applicable	☑
14.b	Available to set manually	☐
14.c	Available to set via API	☐
14.d	Is this a mandatory control?	☐
15	If mandatory provide rule citation	
16	Does the Exchange make **maximum intraday margin utilization/buying power limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set? *Check all that apply*	
16.a	Not applicable	☐
16.b	Available to set manually	☑
16.c	Available to set via API	☐
16.d	Is this a mandatory control?	☑
17	If mandatory provide rule citation	Rule 949 - https://www.cmegroup.com/content/dam/cmegroup/rulebook/CME/I/9/9.pdf

18	Does the Exchange make **maximum intraday loss** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
18.a	Not applicable	☑
18.b	Available to set manually	☐
18.c	Available to set via API	☐
18.d	Is this a mandatory control	☐
19	If mandatory provide rule citation	

20	Does the Exchange make **maximum number of open orders** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
20.a	Not applicable	☑
20.b	Available to set manually	☐
20.c	Available to set via API	☐
20.d	Is this a mandatory control?	☐
21	21 If mandatory provide rule citation	

22	Does the Exchange make **restricted list management** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
22.a	Not applicable	☐
22.b	Available to set manually	☑
22.c	Available to set via API	☑
22.d	Is this a mandatory control?	☐
23	If mandatory provide rule citation	

24	Does the Exchange make **order/quote volume limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
24.a	Not applicable	☐
24.b	Available to set manually	☑
24.c	Available to set via API	☐
24.d	Is this a mandatory control?	☐
25	If mandatory provide rule citation	

26	Does the Exchange make **user defined price collars** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
26.a	Not applicable	☐
26.b	Available to set manually	☑
26.c	Available to set via API	☐
26.d	Is this a mandatory control?	☐
27	If mandatory provide rule citation	

28	Does the Exchange make **number of outstanding orders/quotes** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
28.a	Not applicable	☑
28.b	Available to set manually	☐
28.c	Available to set via API	☐
28.d	Is this a mandatory control?	☐
29	If mandatory provide rule citation	

30	Does the Exchange make **outstanding orders/quotes volume limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
30.a	Not applicable	☑
30.b	Available to set manually	☐
30.c	Available to set via API	☐
30.d	Is this a mandatory control?	☐
31	If mandatory provide rule citation	

32	Does the Exchange make **number of messages per time interval** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
32.a	Not applicable	☑
32.b	Available to set manually	☐
32.c	Available to set via API	☐
32.d	Is this a mandatory control?	☐
33	If mandatory provide rule citation	

34	Does the Exchange make **message volume per time interval** available to Clearing Members/Sponsoring Firms and Traders, and if so, how can it be set? *Check all that apply*	
34.a	Not applicable	☑
34.b	Available to set manually	☐
34.c	Available to set via API	☐
34.d	Is this a mandatory control?	☐
35	If mandatory provide rule citation	

36	Are there any other pre-trade risk control tools that the Exchange makes available to Clearing Members/Sponsoring Firms and Traders, and if so, how can they be set?	If the trading entity uses CME Direct, there are order size, product position limits and margin limits available to be set manually or via the Account Management Services (AMS) API. - If the trading entity uses ClearPort for trade submission, there are product position limits and margin limits that may be set manually or via the Account Management Services (AMS) API. - For Globex, every customer account may have a position limit set and will be enforced by Inline Credit Controls. Position limit may be set manually or via the Account Management Services (AMS) API.

37	Does the Exchange allow Clearing Members/Sponsoring Firms and Traders to set separate hard and soft limits?	◉ Yes ○ No
38	If yes, is the setting of separate hard and soft limits mandatory?	○ Yes ◉ No
39	If mandatory, provide rule citation.	

40	Does the Exchange make **maximum order size limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
40.a	Not applicable	☐
40.b	Available to set by asset class	☐
40.c	Available to set by product group	☐
40.d	Available to set by product	☑
40.e	Available to set by spread	☑
40.f	Available to set by expiry	☐
40.g	Other	*Available by exchange grouping in GC2 Max Quantity Limits *Available on CME Direct front-end at product and spread level

41	Does the Exchange make **maximum intraday net position limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
41.a	Not applicable	☐
41.b	Available to set by asset class	☐
41.c	Available to set by product group	☐
41.d	Available to set by product	☑
41.e	Available to set by spread	☐
41.f	Available to set by expiry	☐
41.g	Other	

42	Does the Exchange make **maximum intraday gross position limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
42.a	Not applicable	☑
42.b	Available to set by asset class	☐
42.c	Available to set by product group	☐
42.d	Available to set by product	☐
42.e	Available to set by spread	☐
42.f	Available to set by expiry	☐
42.g	Other	

43	Does the Exchange make **maximum intraday notional value limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
43.a	Not applicable	☑
43.b	Available to set by asset class	☐
43.c	Available to set by product group	☐
43.d	Available to set by product	☐
43.e	Available to set by spread	☐
43.f	Available to set by expiry	☐
43.g	Other	

44	Does the Exchange make **maximum intraday margin utilization/buying power limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
44.a	Not applicable	☐
44.b	Available to set by asset class	☐
44.c	Available to set by product group	☐
44.d	Available to set by product	☐
44.e	Available to set by spread	☐
44.f	Available to set by expiry	☐
44.g	Other	Available by Exchange/Control Group for Executing Firm

45	Does the Exchange make **maximum intraday loss** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
45.a	Not applicable	☑
45.b	Available to set by asset class	☐
45.c	Available to set by product group	☐
45.d	Available to set by product	☐
45.e	Available to set by spread	☐
45.f	Available to set by expiry	☐
45.g	Other	
46	Does the Exchange make **maximum number of open orders** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
46.a	Not applicable	☑
46.b	Available to set by asset class	☐
46.c	Available to set by product group	☐
46.d	Available to set by product	☐
46.e	Available to set by spread	☐
46.f	Available to set by expiry	☐
46.g	Other	
47	Does the Exchange make **restricted list management** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
47.a	Not applicable	☐
47.b	Available to set by asset class	☐
47.c	Available to set by product group	☐
47.d	Available to set by product	☑
47.e	Available to set by spread	☐
47.f	Available to set by expiry	☑
47.g	Other	
48	Does the Exchange make **order/quote volume limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
48.a	Not applicable	☐
48.b	Available to set by asset class	☐
48.c	Available to set by product group	☐
48.d	Available to set by product	☐
48.e	Available to set by spread	☐
48.f	Available to set by expiry	☐
48.g	Other	Available at the exchange/exchange group level
49	Does the Exchange make **user defined price collars** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
49.a	Not applicable	☐
49.b	Available to set by asset class	☐
49.c	Available to set by product group	☐
49.d	Available to set by product	☐
49.e	Available to set by spread	☐
49.f	Available to set by expiry	☐
49.g	Other	Applies to all orders entered via CME Direct

50	Does the Exchange make **number of outstanding orders/quotes** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
50.a	Not applicable	☑
50.b	Available to set by asset class	☐
50.c	Available to set by product group	☐
50.d	Available to set by product	☐
50.e	Available to set by spread	☐
50.f	Available to set by expiry	☐
50.g	Other	

51	Does the Exchange make **outstanding order/quote volume limits** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
51.a	Not applicable	☑
51.b	Available to set by asset class	☐
51.c	Available to set by product group	☐
51.d	Available to set by product	☐
51.e	Available to set by spread	☐
51.f	Available to set by expiry	☐
51.g	Other	

52	Does the Exchange make **message volume per time interval** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
52.a	Not applicable	☑
52.b	Available to set by asset class	☐
52.c	Available to set by product group	☐
52.d	Available to set by product	☐
52.e	Available to set by spread	☐
52.f	Available to set by expiry	☐
52.g	Other	

53	Does the Exchange make **number of messages per time interval** available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set? *Check all that apply*	
53.a	Not applicable	☑
53.b	Available to set by asset class	☐
53.c	Available to set by product group	☐
53.d	Available to set by product	☐
53.e	Available to set by spread	☐
53.f	Available to set by expiry	☐
53.g	Other	

54	Are there any other pre-trade risk control tools that the Exchange makes available to Clearing Members/Sponsoring Firms and Traders, and if so, at what product level can they be set?	Inline Credit Controls are position limits that may be set at the product level by either clearing members or trading firms (Executing Firms). - Clearing Members may restrict trading in a given product at the account level using the Risk Management Interface (RMI). - Clearing Members must set a margin limit on each executing firm (trading firm) at the exchange or group of exchange levels in GC2 controls. - Clearing Members must set a margin limit applicable to a clearing account for submitting block trades through ClearPort. They may also set product position limits on the same. - Clearing Member must set a margin limit on a clearing account for trading on Globex from CME Direct trading platform. They may also set product position limits on the same.

55	At what user level does the Exchange allow pre-trade risk control tools to be set? *Check all that apply*	
55.a	Clearing Firm/Sponsoring Firm Default	☑
55.b	Trader Firm	☑
55.c	Trader Account Number	☑
55.d	Trader/User Login	☑
55.e	Trader defined desk/Strategy group	☐
55.h	Other	

56	Does the Exchange have 'clone user' functionality which allows for the copying/mirroring of controls from one Trader, group, firm etc. to another?	◉ Yes ○ No
57	If yes, does the functionality allow for choosing what components to clone rather than cloning everything?	○ Yes ◉ No

58	Does the Exchange allow Clearing Member/Sponsoring Firm administrators to raise or lower limits during the trading day?	◉ Yes ○ No

59	Does the Exchange allow Trader administrators to raise or lower limits during the trading day?	◉ Yes ○ No

60	Does the Exchange offer post-trade surveillance tools?	◉ Yes ○ No
61	If yes, which of the following are available? *Check all that apply*	
61.a	Repeated execution alerts/controls	☐
61.b	Volume per time interval controls	☐
61.c	Other	Drop Copy, CME STP and FirmSoft

62	Does the Exchange offer configurable price tolerance levels?	◉ Yes ○ No
63	If yes, how is the logic designed? *Check all that apply*	
63.a	Price Deviation	☑
63.b	Market Depth Protection	☐
63.c	Price Drift Control	☐
63.d	Market Order Disabled	☐
63.e	Other	Price deviation limits may be set by the trader when using the CME Direct trading platform

64	Does the Exchange provide self-match prevention tools configurable by both the Clearing Member/Sponsoring Firm and the Trader?	◉ Yes ○ No
65	If yes, which of the following features are available? *Check all that apply*	
65.a	New order cancels entire resting order	☑
65.b	New order cancels only same quantity of resting order	☐
65.c	New order is canceled, resting order remains	☑
65.d	Both new order and resting order are cancelled	☐
65.e	Order will execute against each other but not print	☐
65.f	Configurable only by Trader	☐
65.g	Configurable only by Clearing Member/Sponsoring Firm	☐
65.h	Other	

66	If yes, at what levels can the controls be set *Check all that apply*	
66.a	Member level firm	☑
66.b	Group level	☑
66.c	Trader ID level	☑
66.d	Member ID level	☑
66.e	Customer Account Level	☑
66.f	Strategy Level	☑
66.g	Session ID level	☑

67	What other services does the Exchange offer **Clearing Members/Sponsoring Firms** to assist with risk management? *Check all that apply*	
67.a	Drop copy feeds	☑
67.b	Kill switches	☑
67.c	Independent order management tool	☑
67.d	Cancel on disconnect	☑
67.e	Order cancel (on behalf)	☑
67.f	Mass cancel (on behalf)	☐
67.g	Non-exchange infrastructure order/trade feed (web etc.)	☐
67.h	Ability to cancel delayed orders (as used in matching engine-based speed bumps)	☐
67.i	Other	Risk Management Interface (RMI) allows API access to block/unblock order entry and cancel working orders at the account level. Mass Quote Protections (MQP) are a post-trade evaluation function designed to auto-cancel a customer's resting quotes and force a Mass Quote submission time-out within a Group Code or across related Group Codes. Order cancel (on behalf) is available on iLink 3 only.

68	What other services does the Exchange offer **Traders** to assist with risk management? *Check all that apply*	
68.a	Drop copy feeds	☑
68.b	Kill switches	☑
68.c	Independent order management tool	☑
68.d	Cancel on disconnect	☑
68.e	Order cancel (on behalf)	☑
68.f	Mass cancel (on behalf)	☐
68.g	Non-exchange infrastructure order/trade feed (web etc.)	☐
68.h	Ability to cancel delayed orders (as used in matching engine-based speed bumps)	☐
68.i	Other	Order cancel (on behalf) is available on iLink 3 only.

69	If the Exchange makes a “drop copy” feed available, what information is contained in the feed? *Check all that apply*	
69.a	Order Acknowledgements	☑
69.b	Filled Orders	☑
69.c	New orders	☑
69.d	Order Amendments	☑
69.e	Order Cancellations	☑
69.f	Reject messages	☑
69.g	Time stamps for all events	☑
69.h	Order numbers for all events	☑
69.i	Other	

70	If the Exchange **offers a Kill Switch to Clearing Members/Sponsoring Firms**, how is it implemented? *Check all that apply*	
70.a	Manually triggered and reset using exchang- provided administration tool	☑
70.b	Triggered and reset using an exchange-provided API	☑
70.c	Automated kill switch triggered by exchange defined parameters	☐
70.d	Other	
71	If triggered and not reset intraday, does the exchange automatically reset the Kill Switch?	○ Yes ◉ No
72	If triggered and not reset intraday, does the exchange require the Kill Switch to be manually reset?	◉ Yes ○ No

73	If the Exchange **offers a Kill Switch to Traders**, how is it implemented? *Check all that apply*	
73.a	Manually triggered and reset using exchange provided administration tool	☑
73.b	Triggered and reset uding an exchange provided API	☐
73.c	Automated kill switch triggered by exchange defined parameters	☐
73.d	Other	
74	If triggered and not reset intraday, does the exchange automatically reset the Kill Switch?	○ Yes ◉ No
75	If triggered and not reset intraday, does the exchange require the Kill Switch to be manually reset?	◉ Yes ○ No

76	If the Exchange provides independent order management capability, how is it provided? *Check all that apply*	
76.a	Manually using an exchange-provided administration tool?	☑
76.b	Automated by API	☐
76.c	Other	

77	If the Exchange provides independent order management capability, does it enable the following **by phone**? *Check all that apply*	
77.a	Ability to review all orders	☐
77.b	Ability to review fill information for the day, including partial fills	☐
77.c	Ability to review cancel and replace history	☐
77.d	Ability to review timestamps	☐
77.e	Ability to cancel individual orders	☐
77.f	Ability to cancel groups of orders	☐
77.g	Ability to cancel all working orders with a single command	☐
77.h	Other	

78	If the Exchange provides independent order management capability, does it enable the following **by portal**? *Check all that apply*	
78.a	Ability to review all orders	☑
78.b	Ability to review fill information for the day, including partial fills	☑
78.c	Ability to review cancel and replace history	☑
78.d	Ability to review timestamps	☑
78.e	Ability to cancel individual orders	☑
78.f	Ability to cancel groups of orders	☑
78.g	Ability to cancel all working orders with a single command	☑
78.h	Other	

79	If the Exchange offers cancel on disconnect at the session level, please specify whether it is mandatory or discretionary	○ Mandatory ◉ Discretionary
80	If Mandatory, provide rule citation	

General Exchange Pre-Trade Risk Controls

The following questions pertain to Exchange Pre-Trade Risk Controls Generally.

81	If the Exchange provides pre-trade control tools, where do each of the tools reside?				
		Gateway	Matching engine	Other	Not Applicable
81.a	Maximum order size limits	◉	○	○	○
81.b	Maximum intraday net postion limits	○	◉	○	○
81.c	Maximum intraday gross position limits	○	○	○	○
81.d	Maximum intraday notional value limits	○	○	◉	○
81.e	Maximum intraday margin utilization/buying power limits	○	◉	○	○
81.f	Maximum intraday loss	○	○	○	○
81.g	Maximum number of open orders	○	○	○	○
81.h	Restriced list management	◉	○	○	○
81.i	Order/Quote volume limits	◉	○	○	○
81.j	User defined price collars	○	○	◉	○
81.k	Number of outstanding order/quote limits	○	○	○	○
81.l	Outstanding orders/quotes volume limits	○	○	○	○
81.m	Number of messages per time interval	◉	○	○	○
81.n	Message volume per time interval	○	○	○	○

82	If the Exchange provides any other pre-trade control tools, what are these, and where do each of the tools reside?	If the trading entity uses CME Direct, there are order size, product position limits and margin limits available enforced within the CME Direct trading application. - If the trading entity uses ClearPort for trade submission, there are product position limits and margin limits that are enforced at the gateway to ClearPort (RAV Calc). - For Globex, every customer account may have a position limit set and will be enforced by Inline Credit Controls (ICC). ICC is enforced in the matching engine. - For Globex, every Globex Executing firm must have margin, and optionally, position limits set for trading futures and options. Limits are enforced at the gateway. - Access Manager restrictions are enforced at the gateway. - Risk Management Interface (RMI) allows API access to block/unblock order entry and cancel working orders at the account level. RMI instructions are enforced at the matching engine.

83	If the Exchange provides pre-trade control tools, what happens when each limit is hit?					
		Reject Order	Pause Order	Shut Down Session	Other	Not Applicable
83.a	Maximum order size limits	◉	○	○	○	○
83.b	Maximum intraday net postion limits	◉	○	○	○	○
83.c	Maximum intraday gross position limits	○	○	○	○	○
83.d	Maximum intraday notional value limits	◉	○	○	○	○
83.e	Maximum intraday margin utilization/buying power limits	◉	○	○	○	○
83.f	Maximum intraday loss	○	○	○	○	○
83.g	Maximum number of open orders	○	○	○	○	○
83.h	Restriced list management	◉	○	○	○	○
83.i	Order/Quote volume limits	◉	○	○	○	○
83.j	User defined price collars	○	◉	○	○	○
83.k	Number of outstanding order/quote limits	○	○	○	○	○
83.l	Outstanding orders/quotes volume limits	○	○	○	○	○
83.m	Number of messages per time interval	◉	○	○	○	○
83.n	Message volume per time interval	○	○	○	○	○

84	Are there any other details that you would like to provide on the above question?	
85	If the Exchange provides margin utilization/buying power control limits, how is the margin calculated?	Globex Credit Controls (GC2) calculates available long margin and available short margin to enforce a margin limit on all Globex orders. GC2 incorporates margin rates in 2 calculations: 1) For futures, margin utilization is calculated based on the margin rate of each contract. Long utilization = working long + traded long - traded short for each product complex. Short utilization = working short + traded short - traded long in each product complex. The longs are summed and equal total long margin utilization and similarly for shorts. Available long margin = Limit - total longs and Available short margin = Limit - total shorts. These available margin amounts are sent into the matching engine and enforced at order entry time. The margin rate of the contract in the order is used to calculate required margin and the order is either accepted or rejected at entry. 2) For options, similar methodology as for futures. To calculate each option contract's margin rate, the margin rate of the underlying future is multiplied by the options delta. A minimum margin charge for an option is used. Deltas are updated once per day. All else is the same for option margin checking.
86	Does the Exchange have a risk controls portal available for Clearing Member / Sponsoring Firm and Trader viewing?	◉ Yes ○ No
87	Does the Exchange set default risk controls if nothing is set by the Clearing Member / Sponsoring Firm or Trader?	◉ Yes ○ No

	If the Exchange provides pre-trade control tools, what is the sequence of events when a pre-trade control check is performed?	
88	The order is already in the matching engine queue and then the control check is performed ("out of-line check")	○
	The control check is performed before the order reaches the matching engine and gets queued ("in-line check")	◉
89	If the Exchange provides pre-trade control tools, are the pre-trade controls in the critical path even if they are optional (i.e., is the code still called)?	◉ Yes ○ No
90	If the Exchange provides pre-trade control tools, do any of the controls add latency?	○ Yes ◉ No
91	If yes, what is the latency added?	n/a
92	If the Exchange provides pre-trade control tools, how are users notified if the controls are not operating as intended?	In the event of any system outage the Global Command Center (GCC) is responsible for sending any customer notifications related to the outage. Information on the GCC's target messaging distributions, along with instruction on how to subscribe can be found here: https://www.cmegroup.com/globex/trade-on-cme-globex/gcc-support.html
93	If the Exchange provides pre-trade control tools, how quickly do changes to the controls go into effect?	Generally, immediately.
94	If the Exchange provides pre-trade control tools, is there a notification that the controls have been changed?	○ Yes ◉ No
95	If yes, please provide specifics	n/a
96	If the Exchange provides pre-trade control tools, are previous control settings stored?	◉ Yes ○ No
97	If yes, provide specifics on what information is stored and for how long	Risk limits changed by firm risk admins are stored in the audit trail for firm users to view for a minimum of 5 years.
98	If the Exchange provides pre-trade control tools is an audit trail of controls entered and controls changed available?	◉ Yes ○ No

Exchange Market Integrity Controls

The following questions pertain to Exchange Market Intergrity Controls.

99	What controls does the Exchange set to prevent market disruption? Please indicate whether the controls are "available" or "mandatory."		
		Available	Mandatory
99.a	Dynamic price banding	○	◉
99.b	Market pauses or halts	○	◉
99.c	Message policies	○	◉
99.d	Message throttles	○	◉
99.e	Kill switches	◉	○
99.f	Cancel on disconnect	◉	○
99.g	Error policies	○	◉
100	If any of the above are mandatory, please provide the rule citation in each case.	Rule 579.A for Market Integrity Tools Rule 588 for Error Trade Policy Rule 589 For Circuit Breakers	
101	If the Exchange has dynamic price banding, does it enable the following? *Check all that apply*		
101.a	Limits differentiated on specific characteristics of a product	☑	
101.b	Limit differentiated based on specific conditions of the market	☑	
101.c	Limits that can be adapted intraday	☑	
101.d	Other		
102	If the Exchange has market pauses or halts, what specific events trigger such halts? *Check all that apply*		
102.a	Orders outside a given price deviations for a given financial instrument	☑	
102.b	Change in volatility over a specified time interval for a given financial instrument	☑	
102.c	Other		
103	If the Exchange applies a market pause or halt for a specific financial instrument, does it coordinate halts with:		
103.a	Related financial instruments on the same exchange	☑	
103.b	Related financial instruments on other exchanges	☑	
104	If the Exchange has market pauses or halts, how is price discovery re-established after the event? *Check all that apply*		
104.a	Resume continuous trading	☐	
104.b	An intraday auction period	☐	
104.c	Other	Pre-open period followed by continuous trading	

105	If the Exchange has market pauses or halts, how is the event communicated to market participants? *Check all that apply*	
105.a	Email	☑
105.b	Website	☐
105.c	Other	Market Data and Phone Text Message. Velocity Logic halts are communicated via market data only.

106	If the Exchange has market pauses or halts, are the parameters that trigger such events available publicly? *Check all that apply*	
106.a	Website	☑
106.b	On request	☐
106.c	Other	

107	If the Exchange offers cancel on disconnect functionality, is it enabled by default?	◉ Yes ○ No

108	If the Exchange has an error policy, what is the approach to "**single trade**" error trades? *Check all that apply*	
108.a	Let the trade stand if with defined range	☑
108.b	Let the trade stand if within specified time limit	☐
108.c	Adjust the price if it is outside a certain range	☑
108.d	Cancel/bust the trade if it outside a certain range	☑
108.e	Other	The policy has a bias toward repricing rather than cancellation though we reserve the right to cancel a trade if warranted.

109	If the Exchange has an error policy, what is the approach to "**mass trade**" error trades? *Check all that apply*	
109.a	Let trade stand if with defined range	☑
109.b	Let trade stand if within specified time limit	☐
109.c	Adjust price if outside a certain range	☑
109.d	Cancel/bust trade if outside a certain range	☐
109.e	Other	The policy has a bias toward repricing rather than cancellation though we reserve the right to cancel a trade if warranted.

110	If the Exchange's error trade policy adjusts prices outside of a certain range, what is the approach for determining that range?	Non Reviewable Ranges are determined by taking into account volatility of the product, tick size of the contract, and liquidity characteristics.

111	Are all products subject to the same approach or do some products inherit the same range as other similar products? *For example, does a calendar spread product inherit the range from the corresponding outright product? Or is the range for that calendar spread product assessed on its own merit?*	Products are subject to the same approach. Some illiquid look alike products might inherit the NRR of the more liquid contract. As for spreads - implied eligible products inherit the same NRR as the outrights. Non-implied product's spreads will have a % of the outright's NRR.

112	How often are these ranges reviewed to ensure they offer appropriate protection?	Quarterly
113	How often has the error trade policy been invoked in the past 12 months, and what were the circumstances for each?	In 2022 there were 3 trade adjustments. Circumstances on every invoked error trade are unique.
114	Does the Exchange have a clearly defined dispute resolution forum in case of error trades?	(•) Yes ( ) No
115	If yes, what is the forum and dispute resolution process	Rule 588 https://www.cmegroup.com/content/dam/cmegroup/rulebook/CME/I/5/5.pdf

Exchange Certification and Testing Environments

The following questions pertain to Exchange Market Intergrity Controls.

116	Does the Exchange provide a certification environment for certifying vendor and proprietary trading systems?	(●) Yes ( ) No
117	If the Exchange provides a certification environment, which specific functions must be certified? *Check all that apply*	
117.a	Ability of the system to communicate with the exchange	☑
117.b	Specific trading functionality offered by the system	☑
117.c	Specific risk functionality offered by the system	☑
117.e	Other	
118	Does the Exchange provide one certification environment for current production and another environment for the next version of production?	(●) Yes ( ) No
119	If yes, what is the availability of the certification environment?	CME Globex services in Certification and New Release are available from: 8 pm CT Sunday to 4 pm CT Friday, except for a weekly maintenance window from 5 am - 12 pm CT Wednesday.
120	How closely does the certification environment mirror the production environment?	
120.a	Exact duplicate with mirrored synthetic market activity from production	☑
120.b	Exact duplicate without mirrored market activity, only activity from other certification activity	☐
120.c	Other	
121	Does the Exchange offer a test symbol in the production environment to enable the entry of test trades in production without impacting actual markets?	(●) Yes ( ) No
122	If the Exchange offers a certification environment, which of the following tests can be performed in this environment? *Check all that apply*	
122.a	Unit testing	☑
122.b	Functional testing (integration, regression)	☑
122.c	Non-functional testing (load, stress, performance, scalability)	☐
122.d	Acceptance testing	☑
123	If the Exchange offers a certification environment, which of the following actions can be performed in this environment? *Check all that apply*	
123.a	Send a test order	☑
123.b	Send a cancel of the test order	☑
123.c	Test all order types (blocks, crosses, etc.)	☑
123.d	Receive confirmation of a cancellation of test order	☑
123.e	Receive confirmation of partial execution of the test order and cancellation	☑
123.f	Receive confirmation of full execution of the test order and cancellation	☑
123.g	Receive confirmation of rejection of the test order	☑
123.h	Receive confirmation of enabled risk controls working in the enviroment	☑
123.i	Test pre-trade risk control functionality	☑
124	How are certification and live environments segregated? *i.e., Are applicable orders (test or live) going over the same wires such that a configuration error can have a major impact?*	Access to the Certification/New Release and Production environments is enabled via separate network access options. The Production environment cannot be reached via a Certification/New Release network connection nor can the Certification/New Release environment be reached via a Production environment network connection.

	General Information	
125	Does the Exchange provide information on the following to the public via website/exchange portal? *Check all that apply*	
125.a	Risk control tools provided by the Exchange to Traders	☑
125.b	Risk control tools provided by the Exchange to Clearing Members/Sponsoring Firms	☑
125.c	Mechanisms used by the Exchange to protect market integrity	☑
126	Does the Exchange verify Exchange set market integrity control settings to ensure that the values would prevent a market disruption?	◉ Yes ○ No
127	Does the Exchange test and validate all Exchange provided risk control tools to ensure that they are operating properly?	◉ Yes ○ No
128	Is there any additional information that you would like to provide on the Exchange's risk control tools?	Market Integrity Tools - https://www.cmegroup.com/confluence/display/EPICSANDBOX/Market+Integrity+Controls